

ASN-RDA/CHENG & NDIA
Naval Interoperability Workshop
May 30 & 31, 2001

SUGGESTIONS FOR THE INTEROPERABILITY TEST CYCLE

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Background

“The technology is here today to system engineer at the Battle Force level. To do so requires that we change the way that we acquire, test, and certify Battle Force units. For example, today our shipyards deliver very capable ships. But, they are not (necessarily) BG interoperable -- they are not required (measurably) to be. If we required ships to be delivered Battle Group interoperable, then we should require them to be tested in a Battle Force environment as a ‘family of systems’ **before delivery.**”

Basic Test Cycle



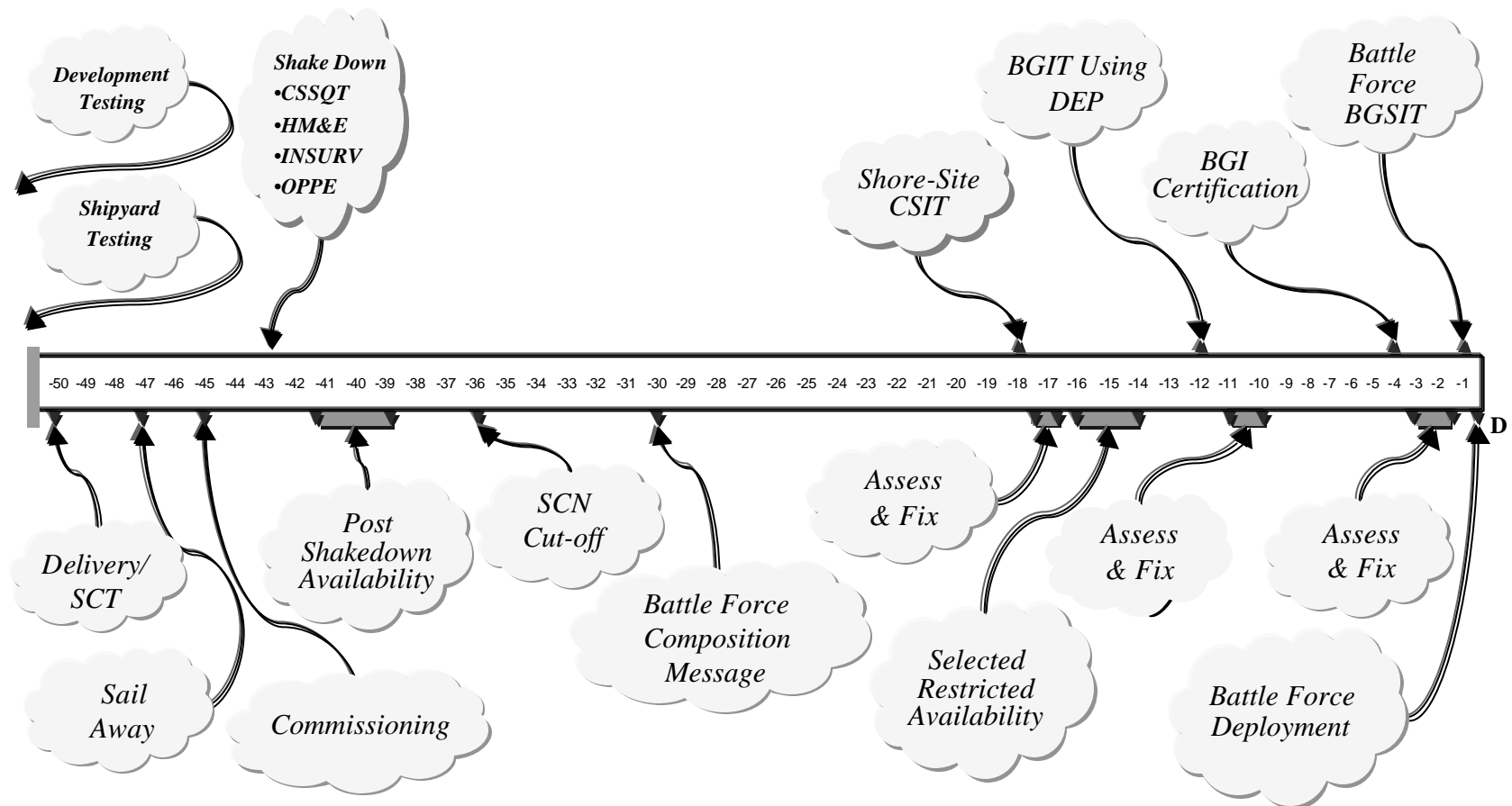
- ★ The purpose of testing is to identify and fix problems
- ★ Must allow time to fix the problems, many of which are complex
- ★ Must retest to ensure fixes work, without causing collateral problems
 - Must ensure the right assets are available to fix and retest

Navy CS Interoperability Test Cycle

Test Stage	Purpose
Developmental Testing	Functionality of individual system; at development site or land-based test site
Shipyard Testing	Operation of ship components onboard ship
Combat System Integration Test (CSIT)	Interoperability of computer programs and interfaces; primarily single platform; at land-based test site
Battle Group Interoperability Test (BGIT)	Interoperability of CS and TADIL components of each BG ship class; utilizes the DEP as a tool
Battle Group System Integration Test (BGSIT)	BG interoperability; all live and underway

This is a logical series of tests, that increase in interoperability complexity at each stage.

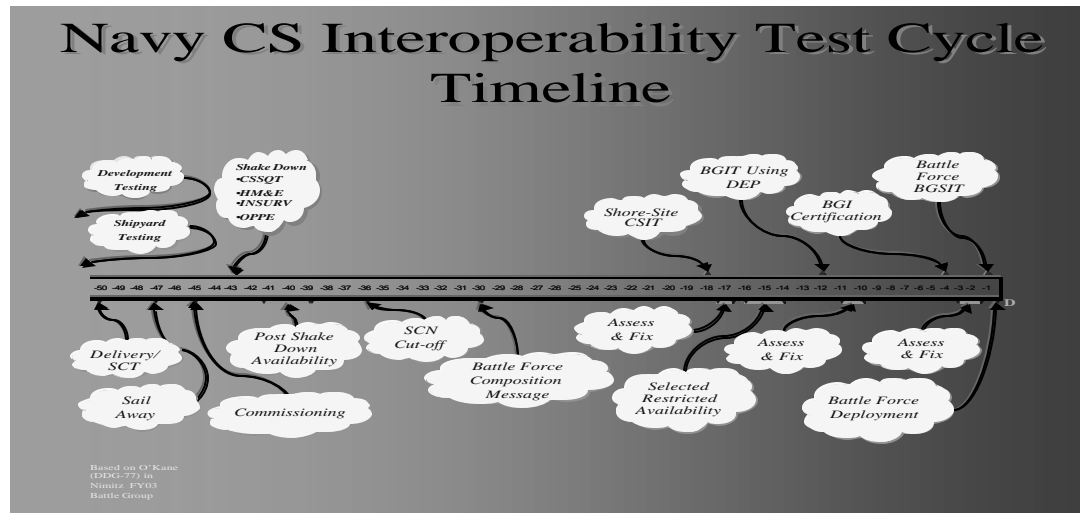
Navy CS Interoperability Test Cycle Timeline



Based on O'Kane
(DDG-77) in
Nimitz FY03
Battle Group

This is normally viewed as at least two schedules, so the time between ship introduction and BG interoperability testing is not readily apparent.

Timeline Comments



- ★ First BGI test occurs late in the cycle
- ★ BGSIT is the first fully live interoperability test. There is little time for assess, fix, and retest
 - BGSIT should only be a certification
- ★ Period between Sailaway and CSIT contributes little to BGI
- ★ How can Industry help do more effective BGI testing earlier?

Suggestion #1

- ★ Put DEP nodes in the shipyards and make BGI testing a ship delivery requirement
 - Necessitates some BGI testing during shipyard testing, much earlier in cycle
 - Allows for correction of some interoperability problems during PSA with SCN funding
 - Delivers a more capable, immediately useful ship to the fleet

Suggestion #2

★ Put DEP nodes in homeports

- Allows inclusion of new platforms and other selected ships in BGIT; get fully live sooner
- Facilitates other BGI testing (if desired) during the period between Sailaway and CSIT, perhaps during homeport availabilities

Suggestion #3

- ★ Move BGI testing “left” at every opportunity
 - Include live sensor testing in BGIT by including ship(s) in the testing (for example, one AEGIS platform, one ACDS platform, plus DEP sites)
 - Place more emphasis on multi-platform testing in CSIT
 - Gradually move CSIT left in the schedule

Summary

- ★ Must do BGI testing earlier in the schedule
- ★ Make more flexible use of our existing interoperability tests; include BGI testing in all phases starting with shipyard testing
- ★ Get live platforms involved in BGI testing sooner via homeport DEP
- ★ The inherent capability to move BGI testing “left” is provided by DEP

Back-up Slides

Total Ship Test Program

- ★ Total ship testing is the systematic planning, organizing, execution and reporting of testing from the total ship perspective. The Total Ship Test Program (TSTP) was instituted in 1974 to establish policies and standard practices for ship testing during industrial periods in order to help assure proper accomplishment of the industrial work and to verify the material readiness of the ship for fleet operations. These policies and procedures pertain to the industrial periods of a ship's life; e.g., Construction, Conversion, Modernization, Post-Shakedown, Availability, Regular Overhaul, Selected Restricted Availability, Phased Maintenance Availability, etc...

Total Ship Test Program continued...

★ Scope (Extract)

- ... The requirements of this manual are the minimum necessary for effectively executing ship test programs; *They do not modify or supersede other requirements that are separately imposed for selected components, systems, or classes of ships, such as those in the references of Appendix A...*

★ Appendix A - References

- ... NAVSEAINST 3960.2 Series - Test and Evaluation...
(Note: Superseded by DOD 5000 Series Mandatory Procedures for Major Defense Acquisition Programs...)

★ Appendix C - Responsibilities... (of other activities)

- NAVSEA, NAVAIR, and SPAWAR Shipboard System Manager. Ensure timely completion of systems engineering, the conduct of **development and operations testing**, EM compatibility testing and the establishment of a stable product baseline, of systems being developed for ship board installation and use

TSTP Test Stages

- ★ Stage 1 - Material Receipt and Inspection, and Shop Tests
 - Provides for inventory management and physical inspection of all equipment and associated documentation...
- ★ Stage 2 - Shipboard Installation Tests and Inspection
 - Demonstrate installation in accordance with the requirements of the ship specification
- ★ Stage 3 - Equipment Tests
 - Demonstrate that the individual equipment and groups of equipment meet their design parameter and perform within the limits and tolerances required by the ship specification
- ★ Stage 4 - Intra-System Tests
 - Demonstrate that intra-system (equipment and functions entirely within one independent system) operation and alignment are within the limits and tolerances required by the ship specification

TSTP Test Stages continued...

★ Stage 5 - Inter-system Tests

- Demonstrate that intersystem (two or more independent systems that interface) operation and alignment are within the limits and tolerances required by the ship specification

★ Stage 6 - Special Tests

- Those tests which require special simulation facilities or significant facilities/resources external to the immediate testing location. Tests for special purposes, such as access to equipment for maintenance, repair or removal, reliability, maintainability and availability demonstrations, radiation hazards (RADHAZ) testing, EMI testing, electromagnetic interference and the ship inclining experiment are included. Special tests can apply to equipment, a system or a number of systems, and may require total ship operability

★ Stage 7 - Trials Tests

- Tests that are unique to Builder's Trials (BT) and Acceptance Trials (AT), including the associate prerequisite dockside testing prior to getting underway

DDG-51 Master Planning Schedule

DDG 51 CLASS MASTER PLANNING SCHEDULE (CONTRACT AWARD TO DELIVERY)

CURRENT AS OF 31 January 2001

OPR 4000P
(703) 602-9406 x385

FY	HULL/ YARD	SHIP NAME	CONTRACT AWARD		START FAB	LAY KEEL	LAUNCH/ FLOAT-OFF	CHRISTENING	AEGIS ⁵ LIGHT OFF	TRIAL ALPHA	TRIAL BRAVO	TRIAL CHARLIE	DELIVERY/ SCT
85	51/B	USS ARLEIGH BURKE	*04-02-85	P	*09-06-87	*12-06-88	*09-16-89	*09-16-89	*03-27-90	*11-19-90	*01-16-91	*04-01-91	*04-29-91
				C	09-06-87	12-06-88	09-16-89		03-27-90	10-05-90	12-22-90	01-24-91	04-29-91
87	52/I	USS BARRY	*05-26-87	C	*05-11-89	*02-26-90	*05-10-91	*06-08-91	*01-13-92	*06-29-92	*08-17-92	*08-31-92	*10-19-92
				C	05-15-89	02-26-90	03-09-91		11-25-91	08-26-92	08-21-92	09-11-92	10-19-92
	53/B	USS JOHN PAUL JONES	*09-25-87	P	*04-16-89	*08-08-90	*10-26-91	*10-26-91	*07-21-92	*04-27-93	*06-15-93	*07-13-93	*08-20-93
				C	04-16-90	11-18-90	11-17-91		05-05-92	02-23-93	04-13-93	05-12-93	06-27-93
89	54/B	USS CURTIS WILBUR	*12-13-88	P	*05-13-90	*03-12-91	*05-16-92	*05-16-92	*12-10-92	*07-29-93	*10-05-93	*11-02-93	*12-10-93
				C	12-11-90	07-09-91	03-14-92		12-03-92	06-17-93	08-12-93	09-05-93	10-05-93
	55/I	USS STOUT	*12-13-88	P	*10-18-90	*08-08-91	*10-16-92	*10-24-92	*08-11-93	*01-24-94	*03-07-94	*03-21-94	*05-16-94
				C	09-04-90	08-12-91	10-17-92		05-17-93	12-09-93	01-19-94	02-02-94	03-28-94
	56/B	USS JOHN S. McCain	*12-13-88	P	*11-04-90	*09-03-91	*09-26-92	*09-26-92	*04-09-93	*12-01-93	*03-29-94	*04-26-94	*05-27-94
				C	06-11-91	01-07-92	10-06-92		03-29-93	10-23-93	12-18-93	01-11-94	02-10-94
	57/I	USS MITSCHER	*12-13-88	P	*04-15-91	*02-12-92	*05-07-93	*05-15-93	*01-12-94	*06-27-94	*07-25-94	*08-08-94	*10-03-94
				C	02-25-91	02-12-92	05-29-93		11-15-93	05-19-94	06-15-94	06-29-94	08-08-94
	58/B	USS LABOON	*12-13-88	P	*05-05-91	*03-23-92	*02-20-93	*02-20-93	*08-31-93	*08-02-94	*09-20-94	*11-01-94	*12-02-94
				C	12-10-91	07-07-92	04-06-93		08-31-93	03-15-94	05-10-94	08-03-94	07-13-94
90	59/I	USS RUSSELL	*02-22-90	P	*09-16-91	*07-24-92	*10-20-93	*10-23-93	*05-19-94	*12-12-94	*01-23-95	*02-06-95	*03-20-95
				C	11-07-91	07-27-92	10-16-93		03-21-94	10-21-94	11-16-94	12-05-94	01-25-95
	60/B	USS PAUL HAMILTON	*02-22-90	P	*11-17-91	*08-24-92	*07-24-93	*07-24-93	*02-17-94	*10-20-94	*12-13-94	*01-31-95	*03-10-95
				C	11-17-91	08-24-92	07-24-93		02-17-94	10-21-94	12-16-94	02-01-95	03-10-95
	61/I	USS RAMAGE	*02-22-90	P	*01-10-92	*01-04-93	*02-11-94	*04-23-94	*07-07-94	*02-21-95	*02-21-95	*03-20-95	*05-08-95
				C	03-12-92	01-04-93	02-12-94		08-16-94	02-03-95	02-22-95	03-08-95	04-27-95
	62/B	USS FITZGERALD	*02-22-90	P	*05-03-92	*02-09-93	*01-29-94	*01-29-94	*09-20-94	*03-28-95	*05-16-95	*06-13-95	*07-28-95
				C	05-03-92	02-09-93	01-29-94		09-20-94	03-29-95	05-19-95	06-14-95	07-28-95
	63/I	USS STETHEM	*02-22-90	P	*07-13-92	*05-11-93	*06-17-94	*07-16-94	*11-07-94	*05-02-95	*05-02-95	*06-05-95	*07-24-95
				C	07-20-92	05-10-93	06-18-94		11-14-94	05-04-95	05-31-95	06-14-95	07-24-95
91	64/B	USS CARNEY	*01-16-91	P	*10-18-92	*08-03-93	*07-23-94	*07-23-94	*03-10-95	*08-29-95	*10-10-95	*11-13-95	*12-08-95
				C	10-18-92	08-03-93	07-23-94		03-12-95	08-30-95	10-27-95	11-17-95	01-19-96
	65/I	USS BENFOLD	*01-16-91	P	*12-01-92	*09-27-93	*11-09-94	*11-12-94	*04-10-95	*09-18-95	*09-18-95	*10-16-95	*12-04-95
				C	01-14-93	08-26-93	09-01-94		01-28-95	07-09-95	10-01-95	10-15-95	11-23-95
	66/B	USS GONZALEZ	*01-16-91	P	*04-04-93	*02-03-94	*02-18-95	*02-18-95	*09-08-95	*04-30-96	*04-30-96	*05-21-96	*06-14-96
				C	04-04-93	02-03-94	02-18-95		09-10-95	03-15-96	05-03-96	05-22-96	07-19-96
	67/I	USS COLE	*01-16-91	P	*05-03-93	*02-28-94	*02-10-95	*04-08-95	*06-30-95	*12-13-95	*12-13-95	*01-22-96	*03-11-96
				C	07-08-93	02-24-94	03-02-95		07-20-95	01-07-96	03-31-96	04-14-96	05-23-96
92	68/B	USS THE SULLIVANS	*04-08-92	P	*09-05-93	*07-27-94	*08-12-95	*08-12-95	*03-01-96	*10-01-96	*10-01-96	*10-29-96	*11-22-96
				C	09-05-93	07-27-94	08-12-95		02-18-96	08-21-96	10-11-96	10-30-96	12-08-96
	69/I	USS MILIUS	*04-08-92	P	*10-04-93	*08-08-94	*08-01-95	*10-28-95	*11-28-95	*06-05-96	*06-05-96	*07-08-96	*08-19-96
				C	12-29-93	08-24-94	10-04-95		03-08-96	09-23-96	11-11-96	11-25-96	01-08-97

I Ships built at Ingalls Shipbuilding
B Ships built at Bath Iron Works

§ Ingalls AEGIS Light Off Planning Dates are Start Dates
§ BHW AEGIS Light Off Planning Dates are Week-Ending
All Shipyard Planning Trial Dates are Start Dates
All Contract Trial Dates are Complete Dates

P Yard Planning Date
C Contract Date

* Actual Dates
Change from Last Issue (1 Sep 00)
‡ Combined Trials Alpha and Bravo

Encl (1)

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DDG-51 Master Planning Schedule

DDG 51 CLASS MASTER PLANNING SCHEDULE (DELIVERY TO SCN CUTOFF)

CURRENT AS OF 31 January 2001

OPR 4000P
(703) 602-9406 x385

HULL/ YARD	UIC	SHIP NAME	CO/PCO	FLEET	HOME PORT	DELIVERY/ SCT	SAILAWAY	COMMISSIONING	FCT START	PSA START	PSA END	SCN CUTOFF
51/B	21487	USS ARLEIGH BURKE	CDR Alan Eschback	LANT	NORVA	*04-29-91	*06-22-91	*07-04-91	*12-09-91	*03-23-92	*07-13-92	*02-28-93
52/I	21660	USS BARRY	CDR Bill Bingham	LANT	NORVA	*10-19-92	*12-14-92	*12-12-92	*04-26-93	*05-03-93	*09-02-93	*11-30-93
53/B	21313	USS JOHN PAUL JONES	CDR Tom Carney	PAC	SDGO	*08-20-93	*10-25-93	*12-18-93	*09-26-94	*07-10-94	*09-23-94	*03-31-95
54/B	21644	USS CURTIS WILBUR	CDR Don Roane, Jr.#	PAC	YOKO	*12-10-93	*02-14-94	*03-19-94	*08-15-94	*09-13-94	*12-19-94	*01-31-95
55/I	21685	USS STOUT	CDR Clifford Sharpe#	LANT	NORVA	*05-16-94	*08-06-94	*08-13-94	*03-06-95	*03-20-95	*07-03-95	*07-31-95
56/B	21686	USS JOHN S. McCain	CDR Jeff Harbeson	PAC	YOKO	*05-27-94	*07-27-94	*07-02-94	*01-23-95	*02-27-95	*05-06-95	*06-30-95
57/I	21687	USS MITSCHER	CDR Frank Pandolfo	LANT	NORVA	*10-03-94	*12-03-94	*12-10-94	04-24-95	*06-26-95	*10-02-95	*11-30-95
58/B	21820	USS LABOON	CDR Eugene Moran	LANT	NORVA	*12-02-94	*02-27-95	*03-18-95	*07-31-95	*09-12-95	*12-11-95	*01-31-96
59/I	21821	USS RUSSELL	CDR Robert Winsor	PAC	PEARL	*03-20-95	*05-23-95	*05-20-95	*10-23-95	*10-30-95	*12-07-95	*04-30-96
60/B	21822	USS PAUL HAMILTON	CDR Dennis O'Meara	PAC	PEARL	*03-10-95	*05-12-95	*05-27-95	(1)*12-11-95	*01-08-96	*03-01-96	*04-30-96
61/I	21823	USS RAMAGE	CDR Chris Kiley	LANT	NORVA	*05-08-95	*07-12-95	*07-22-95	(1)*01-15-96	*02-12-96	*04-15-96	*06-30-96
62/B	21824	USS FITZGERALD	CDR Alfred Collins	PAC	SDGO	*07-28-95	*10-02-96	*10-14-95	(1)*03-25-96	*05-20-96	*08-12-96	*09-30-96
63/I	21825	USS STETHEM	CDR Craig Fuller	PAC	SDGO	*07-24-95	*09-18-95	*10-21-95	(1)*03-18-96	*04-01-96	*06-10-96	*08-31-96
64/B	21923	USS CARNEY	CDR Mike Jacobsen	LANT	MYPT	*12-08-95	*03-22-96	*04-13-96	(1)*12-02-96	*09-16-96	*12-06-96	*02-28-97
65/I	21940	USS BENFOLD	CDR Adam Levitt#	PAC	SDGO	*12-04-95	*02-28-96	*03-30-96	(1)*08-19-96	*09-30-96	*12-16-96	*01-31-97
66/B	21833	USS GONZALEZ	CDR Patrick O'Rourke	LANT	NORVA	*06-14-96	*09-19-96	*10-12-96	*04-06-98	*01-13-97	*09-27-97	*06-30-98
67/I	21941	USS COLE	CDR Kirk Lippold	LANT	NORVA	*03-11-96	*06-28-96	*06-08-96	(1)*12-09-96	*01-17-97	*03-31-97	*04-30-97
68/B	21942	USS THE SULLIVANS	CDR Daniel Keller	LANT	MYPT	*11-22-96	*03-25-97	*04-19-97	(1)*07-28-97	*09-08-97	*11-23-97	*07-31-98
69/I	21943	USS MILIUS	CDR Thomas Rowden	PAC	SDGO	*08-19-96	*11-25-96	*11-23-96	(1)*05-19-97	*08-23-97	*09-15-97	*05-31-98

Homeports and fleet assignments are based on OPNAVNOTE S3111.
All new construction ship homeport and fleet assignments are subject to change until official homeport message is released by CNO.

All dates are either Planning or Actual. For additional information concerning ship schedules, contact the Production Officer, PMS 400D3, at the AEGIS Destroyer Division (703) 602-3476 x330.

* Actual Dates
Change from Last Issue (1 Sep 00)
(1) Reduced Scope FCT

DDG-51 Master Planning Schedule

DDG 51 CLASS MASTER PLANNING SCHEDULE (CONTRACT AWARD TO DELIVERY)

CURRENT AS OF 31 January 2001

CPR 4000P
(703) 802-9406 x385

FY	HULL/ YARD	SHIP NAME	CONTRACT AWARD		START FAB	LAY KEEL	LAUNCH/ FLOAT-OFF	CHRISTENING	AEGIS [§] LIGHT OFF	TRIAL ALPHA	TRIAL BRAVO	TRIAL CHARLIE	DELIVERY/ SCT
92	70/B	USS HOPPER	*04-08-92	P	*02-05-94	*02-23-95	*01-05-96	*01-05-96	*07-12-96	*02-25-97	*02-25-97	*03-18-97	*04-11-97
				C	02-06-94	02-26-95	02-03-96		08-04-96	01-23-97	03-21-97	04-09-97	05-20-97
	71/A	USS ROSS		P	*06-27-94	*04-10-95	*03-22-96	*04-20-96	*08-12-96	*02-04-97	*02-04-97	*03-03-97	*04-21-97
92			*04-08-92	C	06-29-94	02-22-95	04-03-96		08-21-96	03-24-97	05-12-97	06-30-97	07-09-97
	72/B	USS MAHAN		P	*07-17-94	*08-17-95	*06-29-96	*06-29-96	*12-19-96	*07-21-97	*07-21-97	*08-05-97	*08-22-97
				C	07-17-94	07-16-95	06-29-96		01-12-97	07-16-97	08-29-97	09-17-97	10-25-97
93	73/B	USS DECATUR	*01-19-93	P	*01-15-95	*01-11-96	*11-10-96	*11-09-96	*05-30-97	*01-26-98	*01-26-98	*02-26-98	*03-13-98
				C	01-15-95	12-03-95	11-09-96		05-18-97	12-19-97	01-29-98	02-25-98	03-28-98
	74/A	USS McFAUL		P	*04-24-95	*01-26-96	*01-18-97	*04-12-97	*06-09-97	*11-18-97	*11-18-97	*12-15-97	*02-23-98
				C	03-09-95	10-19-95	11-28-96		05-01-97	12-08-97	01-19-98	02-02-98	03-12-98
93	75/B	USS DONALD COOK	*01-19-93	P	*06-18-95	*07-09-96	*05-03-97	*05-03-97	*01-09-98	*06-29-98	*06-29-98	*07-13-98	*08-21-98
				C	06-25-95	04-28-96	04-05-97		10-19-97	07-03-98	07-03-98	07-15-98	08-21-98
	76/B	USS HIGGINS		P	*10-23-95	*11-14-96	*10-04-97	*10-04-97	*05-15-98	*11-16-98	*11-16-98	*12-14-98	*01-14-99
94			*01-19-93	C	11-26-95	10-13-96	09-20-97		05-17-98	11-06-98	11-20-98	12-18-98	01-21-99
	77/B	USS O'KANE		P	*03-17-96	*05-08-97	*03-28-98	*03-28-98	*10-23-98	*03-30-99	*03-30-99	*04-26-99	*05-19-99
				C	11-06-96	06-11-97	03-28-98		10-25-98	04-02-99	04-02-99	04-28-99	05-26-99
	78/A	USS PORTER		P	*02-19-96	*12-02-96	*11-12-97	*11-15-97	*04-20-98	*11-02-98	*11-02-98	*11-16-98	*01-11-99
94			*07-20-94	C	07-17-96	04-09-97	05-06-98		10-07-98	05-14-99	06-11-99	06-25-99	08-18-99
	79/B	USS OSCAR AUSTIN		P	*09-22-96	*10-09-97	*11-07-98	*11-07-98	*06-05-99	*02-03-00	*03-20-00	*04-11-00	*05-11-00
				C	08-06-97	03-11-98	12-09-98		07-18-99	03-18-00	03-28-00	04-18-00	05-11-00
96	80/A	USS ROOSEVELT	*01-08-95	P	*03-10-97	*12-15-97	*01-10-99	*01-23-99	*07-12-99	*02-28-00	*03-27-00	*05-01-00	*06-12-00
				C	06-13-97	04-03-98	04-16-99		10-01-99	06-08-00	07-05-00	07-20-00	08-28-00
	81/B	WINSTON S. CHURCHILL		P	*03-31-97	*05-07-98	*04-17-99	*04-17-99	*12-03-99	*07-24-00	*07-24-00	*08-15-00	*10-13-00
96			*01-08-95	C	03-27-98	10-30-98	07-30-99		12-17-99	08-18-00	08-18-00	09-08-00	10-13-00
	82/A	LASSEN		P	*10-27-97	*08-24-98	*10-16-99	*11-06-99	*04-04-00	*11-13-00	*11-13-00	*12-11-00	*02-05-01
96			*01-08-95	C	11-28-97	09-18-98	11-19-99		05-22-00	11-23-00	12-21-00	01-11-01	02-25-01
	83/B	HOWARD		P	*11-14-97	*12-09-98	*11-20-99	*11-20-99	*06-09-00	*05-21-01#	*05-21-01#	*06-05-01#	*06-22-01#
				C	08-13-98	03-18-99	03-02-00		09-21-00	(2)07-29-01#	(2)07-29-01#	(2)08-12-01#	(2)08-23-01#
96	84/A	BULKELEY	*06-20-96	P	*07-20-98	*05-10-99	*06-21-00	*06-24-00	*11-06-00	*06-18-01#	*06-18-01#	*07-09-01	*08-20-01
				C	07-30-98	04-29-99	06-23-00		11-13-00	06-21-01	06-21-01	07-19-01	09-04-01
	85/B	McCAMPBELL		P	*07-10-98	*07-15-99	*07-02-00	*07-02-00	*05-13-01#	*11-02-01#	*11-02-01#	*12-12-02#	*03-08-02#
				C	02-06-99	09-10-99	08-25-00		(2)06-10-01#	(2)02-01-02#	(2)02-01-02#	(2)03-08-02#	(2)03-29-02#
97	86/A	SHOUP	*12-13-96	P	*01-04-99	*12-13-99	*11-22-00	*02-24-01#	*04-30-01	*12-03-01	*12-17-01#	*01-21-02#	*02-25-02#
				C	01-22-99	01-10-00	12-15-00		05-21-01	12-06-01	12-06-01	01-17-02	(2)03-11-02#
	87/B	MASON		P	*12-24-98	*01-20-00	*06-23-01#	*06-23-01#	*12-16-01#	*08-20-02#	*08-20-02#	*09-10-02#	*10-04-02#
				C	10-08-99	06-12-00	(2)07-22-01#		(2)02-01-02#	(2)10-04-02#	(2)10-04-02#	(2)10-25-02#	(2)11-29-02#
97	88/A	PREBLE	*12-13-96	P	*09-20-99	*06-22-00	*06-01-01	*06-09-01#	*10-22-01	*06-17-02	*06-17-02	*07-15-02	*08-19-02
				C	09-24-99	06-23-00	05-25-01		10-12-01	06-16-02	06-16-02	07-21-02	09-06-02

I Ships built at Ingalls Shipbuilding
B Ships built at Bath Iron Works

§ Ingalls AEGIS Light Off Planning Dates are Start Dates
§ BIW AEGIS Light Off Planning Dates are Week-Ending
All Shipyard Planning Trial Dates are Start Dates
All Contract Trial Dates are Complete Dates

P Yard Planning Date
C Contract Date

* Actual Dates
Change from Last Issue (1 Sep 00)
± Combined Trials Alpha and Bravo
(2) Under Navy Review

DDG-51 Master Planning Schedule

DDG 51 CLASS MASTER PLANNING SCHEDULE

CURRENT AS OF 31 January 2001

(DELIVERY TO SCN CUTOFF)

OPR 400D3
(703) 802-3405 x385

HULL/ YARD	UIC	SHIP NAME	CO/PCO	FLEET	HOME PORT	DELIVERY/ SCT	SAILAWAY	COMMISSIONING	FCT START	PSA START	PSA END	SCN CUTOFF
70/B	21944	USS HOPPER	CDR John Sorce	PAC	PEARL	*04-11-97	*08-01-97	*09-06-97	*02-09-98	*03-30-98	*05-25-98	*07-31-98
71/I	21945	USS ROSS	CDR Mike Hawley	LANT	NORVA	*04-21-97	*06-16-97	*06-28-97	(1)*01-26-98	*02-11-98	*05-04-98	*05-31-98
72/B	21946	USS MAHAN	CDR David Robertson, Jr.#	LANT	NORVA	*08-22-97	*01-16-98	*02-14-98	(1)*07-27-98	*08-27-98	*11-16-98	*05-31-99
73/B	21947	USS DECATUR	CDR Pete Gumataotao	PAC	SDGO	*03-13-98	*07-06-98	*08-29-98	(1)*01-19-99	*01-25-99	*04-09-99	*06-30-99
74/I	21948	USS McFAUL	CDR Bruce Curry	LANT	NORVA	*02-23-98	*04-17-98	*04-25-98	(1)*09-01-98	*10-05-98	*12-11-98	*03-31-99
75/B	21949	USS DONALD COOK	CDR Matthew Sharpe	LANT	NORVA	*08-21-98	*11-16-98	*12-04-98	(1)*05-03-99	*06-01-99	*08-27-99	*06-30-00
76/B	21950	USS HIGGINS	CDR Bill Ault	PAC	SDGO	*01-14-99	*03-26-99	*04-24-99	(1)*08-30-99	*09-20-99 SWM	*12-13-99	*02-29-00
77/B	21951	USS O'KANE	CDR Taylor Skardon#	PAC	PEARL	*05-19-99	*08-27-99	*10-23-99	(1)*01-24-00	*02-21-00 ISI/PEARL	*04-28-00	*07-31-00
78/I	21952	USS PORTER	CDR Mike Smith	LANT	NORVA	*01-11-99	*03-12-99	*03-20-99	(1)*08-09-99	*08-20-99 ISI	*11-12-99	*02-29-00
79/B	21953	USS OSCAR AUSTIN	CDR Paul Smith	LANT	NORVA	*05-11-00	*07-21-00	*08-19-00	*11-27-00	02-22-01 BIW	06-29-01	06-30-01
80/I	21954	USS ROOSEVELT	CDR Matt Bobola	LANT	MYPT	*06-12-00	*08-21-00	*10-14-00	*01-22-01	02-19-01 ISI	06-11-01	07-31-01
81/B	21955	WINSTON S. CHURCHILL	CDR Mike Franken	LANT	NORVA	*10-13-00	02-06-01#	03-10-01 NORVA	04-15-02#	05-08-02# BIW	08-30-02#	(2)TBD#
82/I	21956	LASSEN	CDR Sean O'Connor	PAC	SDGO	02-05-01	04-05-01	04-21-01# TAMPA	08-13-01#	08-27-01# SWM	11-16-01#	03-31-02
83/B	22999	HOWARD	CDR Joe Nolan	PAC	SDGO	06-22-01#	09-14-01#	10-06-01# GALVESTON	04-08-02#	04-22-02# SWM	07-26-02#	08-31-02#
84/I	22992	BULKELEY	CDR Carlos Del Toro	LANT	NORVA	08-20-01	10-15-01	12-08-01# NEW YORK	FEB 02#	03-07-02# ISI	06-07-02#	09-30-02
85/B	22993	McCAMPBELL	CDR Mark Montgomery	PAC	SDGO	03-08-02#	06-28-02#	TBD	DEC 02#	07-08-03# SWM	11-04-03#	(2)TBD#
86/I	22994	SHOUP	CDR Bernard Carter	PAC	Everett,WA	02-25-02#	04-22-02#	TBD	08-05-02	09-18-02 TBD	12-09-02	03-31-03
87/B	22995	MASON	CDR Dave Gale	LANT	NORVA	10-04-02#	01-31-03#	TBD	AUG 03#	SEP 03 BIW	DEC 03#	12-31-03#
88/I	22996	PREBLE	CDR Tim Batzler	PAC	SDGO	08-19-02	(2)11-08-02	TBD	03-31-03	04-28-03 SWM#	07-21-03	10-31-03

Homeports and fleet assignments are based on OPNAVNOTE S3111.

All new construction ship homeport and fleet assignments are subject to change until official homeport message is released by CNO.

All dates are either Planning or Actual. For additional information concerning ship schedules, contact the Production Officer, PMS 400D3, at the AEGIS Destroyer Division (703) 802-3476 x330.

* Actual Dates
Change from Last Issue (1 Sep 00)
(1) Reduced Scope FCT
(2) Under Navy Review

DDG-51 Master Planning Schedule

DDG 51 CLASS MASTER PLANNING SCHEDULE (CONTRACT AWARD TO DELIVERY)

CURRENT AS OF 31 January 2001

OPR 4000P
(703)602-9408 x385

FY	HULL/ YARD	SHIP NAME	CONTRACT AWARD		START FAB	LAY KEEL	LAUNCH/ FLOAT-OFF	CHRISTENING	AEGIS [§] LIGHT OFF	TRIAL ALPHA	TRIAL BRAVO	TRIAL CHARLIE	DELIVERY/ SCT
98	89/I	MUSTIN	*03-06-98	P	*01-31-00	*01-15-01	12-14-01	TBD	05-20-02	#12-09-02#	#12-09-02#	01-20-03#	03-10-03#
				C	03-27-00	01-15-01	12-14-01		05-20-02	02-07-03	02-07-03	03-14-03	04-28-03
	90/B	CHAFEE	*03-06-98	P	*06-16-99	03-25-01#	08-17-02#	08-17-02#	06-30-02#	#03-03-03#	#03-03-03#	03-25-03#	04-18-03#
				C	04-25-00	(2)04-22-01#	(2)09-15-02#		(2)08-20-02#	(2)04-22-03#	(2)04-22-03#	(2)05-13-03#	(2)08-13-03#
99	91/I	PINCKNEY	*03-06-98	P	*05-15-00	07-16-01	06-28-02	TBD	11-18-02	07-14-03#	08-04-03#	08-25-03#	10-06-03#
				C	09-25-00	07-16-01	06-28-02		11-18-02	08-08-03	09-05-03	09-19-03	10-27-03
	92/B	MOMSEN#	*03-06-98	P	*03-06-00	09-09-01#	01-12-03#	02-01-03#	01-05-03#	(2)09-08-03#	#09-08-03#	09-30-03#	10-24-03#
				C	(2)03-12-01#	(2)10-15-01#	(2)03-02-03#		(2)04-21-03#	(2)12-22-03#	(2)12-22-03#	(2)01-12-04#	(2)01-30-04#
00	93/I	CHUNG-HOON#	*03-06-98	P	03-26-01	01-14-02	12-13-02	TBD	05-19-03	#01-19-04#	#01-19-04#	02-16-04#	04-05-04#
				C	03-26-01	01-14-02	12-13-02		05-19-03	02-06-04	02-06-04	03-12-04	04-26-04
	94/B	NITZE#	*03-06-98	P	03-25-01	03-17-02#	08-03-03#	08-03-03#	07-13-03#	#03-08-04#	#03-08-04#	03-30-04#	04-23-04#
				C	(2)11-11-01#	(2)08-11-02#	(2)12-21-03#		(2)12-21-03#	(2)08-22-04#	(2)08-22-04#	(2)09-12-04#	(2)10-01-04#
00	95/I	TBD	*03-06-98	P	09-24-01	07-15-02	06-27-03	TBD	11-17-03	#06-21-04#	#06-21-04#	07-19-04#	09-06-04#
				C	09-24-01	07-15-02	06-27-03		11-17-03	08-06-04	08-06-04	09-03-04	10-25-04
	96/B	TBD	*03-06-98	P	11-18-01#	12-15-02#	04-11-04#	04-11-04#	04-04-04#	#11-16-04#	#11-16-04#	12-14-04#	01-14-05#
				C	(2)07-12-02#	(2)03-16-03#	(2)08-10-04#		(2)08-20-04#	(2)04-22-05#	(2)04-22-05#	(2)05-13-05#	(2)08-24-05#
01	97/I	TBD	*03-06-98	P	03-25-02	01-13-03	12-12-03	TBD	05-17-04	#11-15-04#	#11-15-04#	12-13-04#	02-14-05#
				C	03-25-02	01-13-03	12-12-03		05-17-04	02-04-05	02-04-05	03-11-05	04-25-05
	98/I	TBD	*03-06-98	P	09-30-02	07-21-03	07-02-04	TBD	11-22-04	#06-06-05#	#06-06-05#	07-11-05#	08-29-05#
				C	09-30-02	07-21-03	07-02-04		11-22-04	08-12-05	08-12-05	09-16-05	10-31-05
01	99/B	TBD	*03-06-98	P	06-09-02#	07-06-03#	11-21-04#	11-21-04#	10-24-04#	#06-14-05#	#06-14-05#	07-12-05#	08-05-05#
				C	(2)03-13-03#	(2)11-23-03#	(2)04-10-05#		(2)04-21-05#	(2)12-22-05#	(2)12-22-05#	(2)01-12-06#	(2)02-17-06#
	100/I	TBD	*03-06-98	P	03-24-03	01-12-04	12-10-04	TBD	05-16-05	#11-14-05#	#11-14-05#	TBD	02-20-06#
				C	03-24-03	01-12-04	12-10-04		05-16-05	02-03-06	02-03-06	03-10-06	04-24-06
01	101/B	TBD	*03-06-98	P	02-16-03#	03-14-04#	07-17-05#	07-17-05#	06-26-05#	#02-14-06#	#02-14-06#	03-14-06#	04-07-06#
				C	(2)11-11-03#	(2)07-25-04#	(2)12-11-05#		(2)12-20-05#	(2)08-22-06#	(2)08-22-06#	(2)09-12-06#	(2)10-20-06#

I Ships built at Ingalls Shipbuilding
B Ships built at Bath Iron Works (BIW)

§ Ingalls AEGIS Light Off Planning Dates are Start Dates
§ BIW AEGIS Light Off Planning Dates are Week-Ending
All Shipyard Planning Trial Dates are Start Dates
All Contract Trial Dates are Complete Dates

P Yard Planning Date
C Contract Date

* Actual Dates
Change from Last Issue (1 Sep 00)
‡ Combined Trials Alpha and Bravo
(2) Under Navy Review

DDG-51 Master Planning Schedule

DDG 51 CLASS MASTER PLANNING SCHEDULE

CURRENT AS OF 31 January 2001

(DELIVERY TO SCN CUTOFF)

OPR 400DP
(703) 602-3405 x385

HULL/ YARD	UIC	SHIP NAME	CO/PCO	FLEET	HOME PORT	DELIVERY/ SCT	SAILAWAY	COMMISSIONING	FCT START	PSA START	PSA END	SCN CUTOFF
89/I	22997	MUSTIN	CDR Ann Philips#	PAC	SDGO	03-10-03#	05-12-03#	TBD	DEC 03#	JAN 04#	APR 04#	04-30-04#
90/B	23155	CHAFEE	TBD	PAC	TBD	04-18-03#	08-15-03#	TBD	JAN 04#	FEB 04#	MAY 04#	07-31-04#
91/I	23144	PINCKNEY	TBD	TBD	TBD	10-06-03#	12-08-03#	TBD	DEC 04#	JAN 05#	MAR 05#	TBD#
92/B	23160	MOMSEN#	TBD	TBD	TBD	10-24-03#	02-20-04#	TBD	AUG 04#	SEP 04#	NOV 04#	01-31-05#
93/I	23146	CHUNG-HOON#	TBD	TBD	TBD	04-05-04#	06-07-04#	TBD	JAN 05#	FEB 05#	APR 05#	05-31-05#
94/B	23147	NITZE#	TBD	TBD	TBD	04-23-04#	08-20-04#	TBD	MAR 05#	APR 05#	JUN 05#	07-31-05#
95/I	23148	TBD	TBD	TBD	TBD	09-06-04#	11-08-04#	TBD	JUN 05#	JUL 05#	SEP 05#	10-31-05#
96/B	23153	TBD	TBD	TBD	TBD	01-14-05#	05-13-05#	TBD	DEC 05#	JAN 06#	MAR 06#	04-30-06#
97/I	23154	TBD	TBD	TBD	TBD	02-14-05#	04-11-05#	TBD	SEP 05#	OCT 05#	DEC 05#	03-31-06#
98/I	23149	TBD	TBD	TBD	TBD	08-29-05#	10-31-05#	TBD	MAY 06#	JUN 06#	AUG 06#	09-30-06
99/B	23150	TBD	TBD	TBD	TBD	08-05-05#	12-02-05#	TBD	JUL 06#	AUG 06#	OCT 06#	11-30-06#
100/I	23152	TBD	TBD	TBD	TBD	02-20-06#	04-20-06#	TBD	SEP 06#	OCT 06#	DEC 06#	03-31-07#
101/B	23151	TBD	TBD	TBD	TBD	04-07-06#	08-04-06#	TBD	MAR 07#	APR 07#	JUN 07#	07-31-07#

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